

APPENDIX A

ABSTRACT

~~An object of the invention is to provide a transmitter high in efficiency, good in linearity and capable of covering an output level in a wide range.~~

Either linear operating mode or saturation operating mode is set as the operating mode of a high-frequency power amplifier [(15)] on the basis of an operating mode set signal [(107)]. The gain of a variable gain amplifier [(14)] provided in front of the high-frequency power amplifier [(15)] and values of output voltage [(109)] and bias current supplied from a supply voltage/bias current control circuit [(17)] to the high-frequency power amplifier [(15)] are switched. The gain of the variable gain amplifier [(14)] in the saturation operating mode is formed so as to be higher by a predetermined value than that in the linear operating mode. Accordingly, the high-frequency power amplifier [(15)] operates in the designated operating mode, so that the output transmission power range can be widened.